

SPEAKER 1: I'd like to introduce today's session, Video Captioning-- Requirements, Best Practices, and Emerging Standards. And these are today's speakers. We have Patrick Wirth, director of media services for the University of Wisconsin-Extension, Continuing Education, and Josh Miller, co-founder of 3Play Media. Josh?

JOSH MILLER: Thanks a lot. So as noted, we are standing between you and drinks and food, so we're going to try to keep this moving and keep you awake.

So just a quick little review. We are focused on 3Play Media on transcription and closed captioning. We're an MIT spinout from about six years ago. We're based in Cambridge, Massachusetts. And a big chunk of our customer concentration is in the higher ed market. That's where we got started. So we do quite a bit in the education space.

So I'm going to turn it over to Patrick. So he will talk a little bit about what it's like in the real world of actually implementing this.

PATRICK WIRTH: Thanks, Josh. All right. Well, my name is Patrick Wirth. And I lead a creative services team at UW-Extension, Continuing Education. I've been in the e-learning industry for about 14 years. I had a full head of hair when I started. I think it is the e-learning industry I blame, at times, for the hair loss.

So today, I just want to hit on how some of our captioning and transcription policies--- some of the workflows we use to integrate captions and transcripts-- and go over a little bit about our organization. And hit on some of the-- steering away from accessibility, but talking about how we also use captions and transcripts in our marketing projects as well.

So a quick overview of CEOEL. We serve as the primary coordinator for our continuing education programs across all 26 two-year and four-year campuses within the University of Wisconsin system.

Our bread and butter, though, is around our collaborative degree programs. For example, this past year we created a master's degree in sustainable management. And the way that works is, looking up at the map, UW-Superior, UW-River Falls, Oshkosh, and Green Bay all provide faculty instruction. And then where we provide our services around instructional design, media development, and marketing services, which also includes student retention.

And then this January, we launched our first competency-based degree in nursing in collaboration with UW-Milwaukee. It's called the flexible option degree.

So quickly hitting on some of the items. Again, talking about some of the accessibility policies and procedures at CEOEL. Talking about some of the workflows that we utilize in conjunction with 3Play's services. Showing some creative uses for transcripts and captures around our marketing projects.

And then kind of as a thank you to everyone, I want to provide you links to all of our custom media players at the end of this presentation. It's open source. And we'd love for you all to, if you have a need for it, download it and provide feedback. But that'll be at the end of the presentation.

So my team serves two major business units at CEOEL-- the marketing group and our instructional design department, building for online courses. So over the past three years, I've estimated we've created about 1,000 media assets, whether it's video, audio, or what I like to call narrated presentations. So that's a lot of transcripts and captions that we've created over the span of three years.

So on the online course side, we do a lot of meet the instructor, virtual field trips, chalk talks where a faculty member's in front of a writeboard. We also do a lot of animation. If a faculty member's hitting on a complex process or concept, we'll do animation work for them.

And with every media piece that we create, we think about the most pedagogically effective way to make it accessible for our students. The one thing we strive for is we want the outcome of our content to be the same for all of our students across our program.

And then on the marketing side, we've been getting into developing a lot around student stories and faculty testimonials. And so again, in this presentation, I want to maybe hit on some of the workflows we've incorporated with YouTube and 3Play Media.

So just a little brief overview of our policy. The accessibility policy at UW-Extension actually stemmed from our equal employment opportunity policy. We were adhering to subsections of Section 508 of the Rehabilitation Act of 1973. And then in about 2005, they wrote an amendment to this, stating that the standard guidelines established by the W3C had to be adhered to as well.

And Josh hit on this a little bit earlier, but it's the Web Content Accessibility Guidelines. What's nice is two of the editors of this piece are actually right in our backyard at the University of Wisconsin-Madison.

The two particular pieces that play a direct impact on my team are Guideline 1.2 and Guideline 4.1. And with Guideline 1.2, it requires correctly sequenced text descriptions of time-based video and audio. So essentially, applying transcripts to our video and audio pieces. With Guideline 4.1, essentially the key takeaway here is to create accessible transcripts that work properly in assistive technologies, so screen readers.

So why do we care? Well, to hit on bullet point two and four, for us, Wisconsin's a more progressive state, so we are required under law to meet our ADA in compliancy. One of the nice things, too, about good, accessible design is it aids all users, all students. Not only those students with accessibility needs, but I'm going to show you examples of how our transcripts are being used by our entire student population.

So with our video captions, we have a standard policy to caption all of our videos across all of our collaborative degree programs. Now, for some of these videos, it's a little more complex. It gets into process, or maybe it's a demonstration, or maybe we have the faculty member in the lab. And in those circumstances, in addition to providing a caption, we'll also include downloadable transcripts for the students as well.

So a little bit about the workflow. What we typically do is when we finish a video, we will upload that MP4 file to 3Play Media. Traditionally, we pull it from our network. But we could just as easily point to a Kaltura video or a YouTube video.

About anywhere between three to seven days later, we receive the captions and transcripts back from 3Play. And as Josh pointed out, you have a wide array of caption files that you can download. We chose to use the WebVTT, so it's Web Video Text Tracks. It's a new caption format that plays nicely with HTML5.

In fact, many of the latest web browsers support it natively in their player. So for instance, if you use that code up there, and you're in IE 10 plus, or Chrome, or Firefox, the captions will show up automatically in their native player. We actually have our own custom HTML5 player that utilizes WebVTT files.

The other thing I wanted to point out is what we call narrated presentations. So the screen that

you see up there is an example of one of our presentations. And the table of contents on the right-hand side, each of those is a separate media element.

What I'm really proud of is that content area, where it says Water Quality. That can be a variety of media types. We can embed YouTube videos in there. We can embed videos from Kaltura. We can also-- for this particular case, what it is a slide screen capture along with audio. It can also be an HTML page if you wanted.

75% of our media pieces across our programs utilize this player in their courses.

Now, one thing. It may be difficult to see, but you'll notice that the playback doesn't have a closed captions or a caption button. At the moment, for a lot of our presentations, because there's so many audio files and media files we have to deal with, that we just don't have the resources at this point to accommodate every one of those slides to have a caption associated with it. But what we do to meet ADA compliancy is we build downloadable transcripts for the students.

And what I want to just point out here is that with each one of our narrated presentations, in the bottom right-hand side, we've got a download bar that allows students to pull down transcripts, to pull down podcasts. If it's a video file, they can pull that down if they're on a slow connection, and they can watch that offline.

So a little bit about our transcripts. All of our collaborative degree programs have a standard policy to provide these transcripts for each of our presentations. And these differ slightly from what we get back from 3Play. What 3Play provides is the text. What we do is we go ahead and we go in and add the images to each one of these slides. So what you have there is the particular slide the faculty member is talking about, along with their commentary below it.

We also have taken steps to make these screen reader-friendly. And I'll hit on some of those techniques in the next slide. And again, each page is really a slide image plus the audio narration.

This slide was a little ill-conceived. It's pretty busy. I'm going to skip over that. But essentially, we've built a workflow using 3Play services so that we can put these transcripts together extremely efficiently. And if any of you are interested in how we do that, I'd be more than happy to spend some time with you after the session to go over that.

So creating accessible PDF transcripts. Three key takeaways. And actually, while I'm thinking

about this, Kent State came up with a really good tutorial on building accessible PDF files. But three of the key takeaways for us was to use styles in MS Word. That's essentially the equivalent of using h1, h2 paragraph tags in HTML. So it's very well-structured, and allows a screen reader go through content efficiently.

The other thing we do is for the slide images that maybe are a little more complex and hitting on process, we'll write long descriptions. So we will work with the faculty member and the instructional designer to provide long descriptions with some of those slides. So as a user is using a screen reader, it'll actually hit on that long description before it gets into the narration.

And to reiterate what Josh said, so a 25-slide presentation, which is typical for us, to build a transcript takes approximately 15 minutes for our developer. That equates to about 15% of the total development time. So really, it doesn't take a whole lot of time to put these together.

And after serving our students, specifically our sustainable management students, nearly 50% of these students are downloading our transcripts and using those as study aids. My ego took a bit of a hit because some are solely relying on these transcripts and aren't watching the presentation and the pieces we put together. But I think it hits on a lot of different types of learning styles, too. So having that transcript in place, we've gotten a lot of good feedback from our students.

Another thing too is if one of our presentations-- because we're put so many of these together, if we've just happened to forget a transcript for one to those, the students are on top of it. And we get feedback almost immediately from our tech support staff.

So most of our UW system institutions have an accessibility resource center. They have a variety of names. If we have a student with accessibility needs, our student services person will actually work with an instructional technologist from one of these institutions to set up a one-on-one consultation with that student.

For instance, if Mary, her home campus was the UW-La Crosse, our student services rep would contact that center to set up a one-on-one consultation with the student in that center. And then they can utilize their services as they go through our degree programs.

Another nice thing is we quickly learned that we had to assemble an accessibility team that meets quarterly. The idea here is to brainstorm and strategize online accessibility issues. In fact, the last meeting, that's where using WebVTT came from. And you can see it's a wide

array of different skill sets, so instructional designer, student services, application developer, and a senior media specialist.

The other thing this group is responsible for is reviewing the impact of LMS and other technology upgrades. Sometimes simple upgrades can break accessibility standards. So they do a lot of QA-ing with this group.

And then for future work, what we'd like is for the student services person to begin working closely with those instructional technologists to begin coming up with a best practice guide. And that's based off of the feedback we're getting from these accessibility centers across UW system. So that's the future for us.

Steering off a little bit. Not only are students utilizing our transcripts, but we are as well. So for example, we're putting together a lot of student testimonials or student stories. So when we go to film a student, we typically get 30 to 45 minutes of content. Well, we have to pare that down to three to five minutes. That's what we shoot for.

What's great is we can pull down what's called a stamped document. So 3Play will break these into paragraphs and apply the time code at the front. So our PR and videographer can work together to assemble these stories quickly. So it's not like you have a video up and a time code, and you're saying, OK. I'd like to start with minute 1:00 to 1:07. Let's use that at the beginning. Instead, you're taking text and you're moving it around.

And then Josh, so you had mentioned there's a new feature in 3Play that lets you do this through your interface as well. So I'm anxious to learn about this after the conference.

Another thing is when we get the transcripts back from 3Play, our PR person will go through and pull quotes from our student testimonials. And then we've got a database that we can use these quotes on our website. We can use these in blog posts. But again, pulling people into our program, targeting our prospective students.

The other thing is when we're putting together marketing pieces, and we upload those to our YouTube channels, what's nice with 3Play is you can link your account to your YouTube channel. In 3Play, when we send out for a transcript, we point to that YouTube clip. And then when the transcripts and captions are back, we don't have to touch it. Automatively, it moves those caption files to our YouTube channel, so everything is up and running.

So I see we've got about 10 minutes. So I'm going to skip through. Everybody will have access to the presentation afterwards. And here's a link to, again, our open source projects that I'd like to give everybody. And we should have the slides up shortly.

And then here are some of the resources that we use to research and develop around accessibility needs. Put a plug in for 3Play. They've got a tremendous repository of content. And when I do Google searches, they seem to pop up. And very well-written, concise content.

All right. Thank you all so much for attending.

SPEAKER 2: Can you [INAUDIBLE] your open source?

PATRICK WIRTH: You bet.

SPEAKER 2: [INAUDIBLE]

PATRICK WIRTH: And I guess we'll open it up for questions.

SPEAKER 3: A couple things. Where will your presentation be posted? Or where will we be able to get access to it [INAUDIBLE]?

SPEAKER 1: It will be on the website, the [INAUDIBLE] session. There will be a download there where you can download media.

SPEAKER 3: OK, great. And then, just curious, when you're designing presentations or you're working with the instructors with the captioning, and in regards to blocking information or content, or even when you're doing your marketing pieces, do you have to be cognizant of how you're designing things and doing those sorts of things when you have captioning on the screen? Or are you just covering it up with the captioning in regards to the screen size that you have? I don't know if you have to take that into consideration in regards to--

PATRICK WIRTH: So as we're developing pieces, taking into--

SPEAKER 3: When you're doing PowerPoint.

PATRICK WIRTH: Got you.

SPEAKER 3: [INAUDIBLE]

PATRICK WIRTH: And they enable caption. Do we leave that space open, perhaps?

SPEAKER 3: Right. When you're designing and things.

PATRICK WIRTH: Actually, we have not considered that. Back to those narrated presentations, we haven't started incorporating captions yet for those pieces. But when we do, that's an excellent point. And something we will probably create a template that says, this area is off limits in case they turn captioning on.

JOSH MILLER: I would say depending on the media player you're using, there sometimes is some flexibility to put the caption track just below the visual. We have some tools that allow you to do that as well, because that's a really important point.

PATRICK WIRTH: The other thing, too, is the ability to toggle on and off. So you listen through. And then you can turn it off, and then you can review. That's not ideal, but that's another method.

SPEAKER 3: When you mentioned that you do one-on-one consultations with someone that needs accessibility--

PATRICK WIRTH: Correct.

SPEAKER 3: --requirements, but you make your overall adjustments to meet the law standards.

PATRICK WIRTH: Correct.

SPEAKER 3: And then do you do things that are above and beyond that for students that need it?

PATRICK WIRTH: We do, actually. Yeah. With a lot of our students that have accessibility needs, they will actually go to the campus and work directly at the resource centers. So they'll set aside time. And honestly, I think this is for 100% of our students with accessibility needs, is they will go to that accessibility resource center and work directly with that instructional technologist to work through the course. But what's great is we're getting a lot of good feedback from those consultations about how we can improve our courses.

SPEAKER 3: Oh, that's good. OK. Thanks.

SPEAKER 4: So do you guys hold to the other W3C guidelines? I mean, the two that you talk about here are just two.

PATRICK WIRTH: Yeah, absolutely.

SPEAKER 4: [INAUDIBLE] contrast and color and all those other [INAUDIBLE]. Is that supported [INAUDIBLE]?

PATRICK WIRTH: To the best that we can. I will admit, some of our presentations, if somebody with color blindness were to look at it, might have some issues. And I think that's where we're always looking for feedback. We're striving to get to that point. But I can't say with 100% certainty that that's the case. But we do think about that in our design. It's just something that we maybe haven't hit on every one of pieces.

SPEAKER 4: And so the policies that you guys have for your [INAUDIBLE], do they also apply to the larger, broader spectrum of on-campus courses? [? Cover ?] your university's [? perspective. ?]

PATRICK WIRTH: Exactly. So those policies that I talked about apply only to UW-Extension. Although through the research that I've done, all of our UW system campuses have almost the exact same policy with maybe a few alterations here or there.

SPEAKER 4: And were they developed centrally? Or were they developed through centers like yours?

PATRICK WIRTH: Developed through centers like us. I wish it was centrally to provide consistency across the organization. I guess campuses like that autonomy, you know.

SPEAKER 5: [INAUDIBLE]. Let me ask, what was the impetus for getting captioning? If you didn't have it, what sparked you to get that?

PATRICK WIRTH: To get the captioning?

SPEAKER 5: [INAUDIBLE].

PATRICK WIRTH: I mean, the law. Wanting to adhere to the law.

SPEAKER 5: Was it state or federal?

PATRICK WIRTH: So Wisconsin adheres to the federal standards and policies established, so that's one reason. The other is, again, we're trying to meet the needs of all of our students. And it's a way maybe we can differentiate our courses from our competitors by stating that we put a lot of focus behind accessibility needs and being as close to ADA compliant as we can.

SPEAKER 6: What would you say the cost has been to get to this point in your journey?

PATRICK WIRTH: I should have had that answer ready. If I had to guess, including R&D time and building that

into our players, over a three-year span probably close to between \$75,000 and \$100,000. But with each passing year, the cost of that goes down. There was a lot R&D work that was put into it upfront. But with each passing year, that cost goes down dramatically.

SPEAKER 6: Obviously, it's not staff or-- I mean, that's just--

PATRICK WIRTH: No, it's staff too. That's staff time that goes into-- that includes the contract that we have with 3Play, which is actually quite a small chunk of that. But it's our instructional designers. It's that accessibility team we put together. All of that probably equates between 75K, maybe 125K over the last three years.

But our accessibility team was also meeting on a more frequent basis, almost twice a month. We've got that now down to quarterly. We've refined our workflows. So as I stated earlier, to put a transcript up is about 15% of our development time, so it's relatively small chunk.

Any other questions?

SPEAKER 7: What's your current SLA?

JOSH MILLER: They upload us videos. And if it's not done yesterday, we-- so we work on a usage model where with every upload, you can actually specify what turnaround you need. And we try to be pretty flexible around that. So, I mean, they basically have full control over every single file, what that particular SLA is for that file.

PATRICK WIRTH: Typically a three- to five-day turnaround. We don't require next day delivery. We're getting our content pieces done ahead of time. And by done ahead of time, I mean maybe a couple days ahead of time.

Any other questions? Well, thank you all so much. I really appreciate your attendance.